VERSION OF AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES

11. (Amended) A method for detecting leaks in a fluid system to be tested in a volatile potentially explosive environment, said method comprising the steps of:

adding a fluorescent dye to a supply of oil to form a uniform mixture;

locating a heating element in a sealed chamber;

blowing at least some of said uniform mixture of oil and fluorescent dye towards [a] said heating element within said sealed chamber by means of a non-combustible nitrogen gas delivered under pressure to said mixture;

heating the blown mixture by said heating element so that said oil is vaporized into smoke within said sealed chamber to create a carrier for said fluorescent dye, said non-combustible nitrogen gas preventing dieseling within said sealed chamber and the possibility of an explosion at the volatile potentially explosive environment in which the fluid system will be tested;

delivering said smoke and said fluorescent dye carried thereby to the fluid system under test, whereby said smoke will exit a leak in the fluid system and said fluorescent dye will leave a fluorescent trace around the leak; and

shining ultraviolet light on the fluid system under test to illuminate the trace left by the fluorescent dye around the leak.